



Air Force Research Laboratory|AFRL

Science and Technology for Tomorrow's Air and Space Force

SUCCESS STORY

AFRL TEST TEAM RECEIVES COMMANDER'S MEDALLIONS



Brigadier General David Stringer, Arnold Engineering Development Center (AEDC) commander, recently awarded certificates of appreciation and AEDC Commander's Medallions to the AFRL Propulsion Directorate's AEDC Spacer Test Team. The team members received the certificates and medallions for their support in testing repaired fan blade spacers from AEDC's 16 ft transonic (16T) wind tunnel compressor.



Air Force Research Laboratory
Wright-Patterson AFB OH

Propulsion
Awards/Recognition

Accomplishment

AEDC is the world's foremost propulsion and aerodynamic systems test facility. At the start-up of a test program's final phase, AEDC engineers found a mechanical problem in a compressor that powers the facility's I6T wind tunnel, uncovering the mechanical problem just months before a scheduled test series for the tunnel. Upon closer inspection, the engineers discovered the problem: damaged fiberglass composite compressor fan blades, as well as damaged spacers (which separate the blades).

Following the spacers' repair, AFRL's AEDC Spacer Test Team used the laboratory's Propeller Test Facility to test them, assisting AEDC in meeting its own testing schedule by quickly completing the spacer testing.

Background

AEDC engineers use the I6T wind tunnel to test aerospace structures at or near the speed of sound. The I6T wind tunnel, housed within AEDC's Propulsion Wind Tunnel Facility, is capable of simulating flight at wind speeds between Mach 0.06 and 1.6.

AFRL's Propeller Test Facility, which houses three electrically driven whirl test stands (known as spin rigs) completed the spacer testing. During testing, AFRL engineers attached the spacer to a test arm, which is structurally similar to a propeller. The test arm rotates on the drive shaft of a 10,000-horsepower motor mounted atop the test stand. This test--the first of its kind in 20 years--utilized AFRL's spin rigs, which are over 85 years old and still in good operating condition.

Additional Information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (PR-S-05-19)

DISTRIBUTION A - PUBLIC RELEASE